



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,753	03/22/2004	Hiromasa Amma	CFG03433US	2430

7590 01/11/2006

Canon U.S.A. Inc.
Intellectual Property Department
15975 Alton Parkway
Irvine, CA 92618-3731

EXAMINER

VO, ANH T N

ART UNIT	PAPER NUMBER
----------	--------------

2861

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,753

Applicant(s)

AMMA ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 3 and 5-7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/21/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings Object to

The drawings are objected to in that Figures 9A-9D should be labeled as --Prior Art--. Correction is required.

CLAIM REJECTIONS

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are

Art Unit: 2861

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Altendorf et al. (US Pat. 5,969,739) in view of Tajima et al. (US Pat. 6,945,643).

Altendorf et al. disclose in Figure 7 an ink jet pen comprising:

- a liquid discharge head (142, column 6, line 9) for discharging a liquid (ink);
- a liquid absorber (130) for holding the liquid;
- a liquid introducing unit (168) having a liquid channel (184) for supplying said liquid discharge head (187) with the liquid from said liquid absorber (130);
- an opening (an unmarked opening is under an arrow 184) provided at a portion of the liquid channel (184) facing said liquid discharge head (142);
- a filter (136) provided at said liquid introducing unit (168) so as to contact said liquid absorber (130);
- wherein said opening (an unmarked opening is under an arrow 184) is slit-shaped; and
- wherein ink is filled in said liquid discharge head cartridge (110).

However, Altendorf et al. do not disclose a rib and/or a plurality of ribs extending from an inner wall of said liquid introducing unit to a substantially central portion of said filter for supporting said filter.

Nevertheless, Tajama et al. disclose in Figures 2-3 an ink supply system comprising a rib and/or a plurality of ribs (201e) extending from an inner wall of said liquid introducing unit (201f) to a substantially central portion of said filter (201c) for supporting said filter (column 6, lines 34-34).

It would have been obvious at the time the invention was made to a person having

Art Unit: 2861

ordinary skill in the art to incorporate the teaching of Tajama et al. into the Altendorf et al. ink jet pen for the purpose of providing ribs or partition portions so that the filter can rest on them (column 6, lines 34-34).

Citation of Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These prior art references (US Pat. 4,771,295, US Pat. 5,502,479, US Pat. 6,082,852; US Pat. 6,325,499) cited in the PTO 892 form show an ink cartridge, which is deemed to be relevant to the present invention. These references should be reviewed

Allowable Subject Matter

Claim 3 would be allowable if include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a liquid discharge head cartridge comprising a rib that is extended to an opening of a liquid channel in the combination as claimed.

Claim 5 would be allowable if include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a liquid discharge head cartridge comprising a rib that is extended in a direction substantially parallel to a long-side direction of an opening of a liquid channel in the combination as claimed.

Claim 6 would be allowable if include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a liquid discharge head cartridge comprising a pair of ribs that is provided at positions facing across an opening of a liquid channel, and wherein an inclined surface for gradually reducing an interval between the facing ribs from a filter toward the opening is formed at each of the pair of ribs in the combination as claimed.

Claim 7 would be allowable if include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a liquid discharge head cartridge comprising a plurality of ribs that are extended radially from a substantially central portion of an opening of a liquid channel of a liquid introducing unit in a long-side direction in the combination as claimed.

Claim 11 would be allowable if include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a recording apparatus comprising a plurality of ribs that are extended to an opening of a liquid channel of an liquid introducing unit in the combination as claimed.

Claim 12 would be allowable if include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a recording apparatus comprising a plurality of ribs that are extended in a direction substantially parallel to a long-side direction of an opening of a liquid channel of an liquid introducing unit in the combination as claimed.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M.to 6:00 P.M.

The fax number of this Group 2800 is (703) 872-9306.



ANH T. M. VO
PRIMARY EXAMINER

January 6, 2004